UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,021	04/25/2001	Necdet Uzun	12801-005001	7231

33031 7590 02/14/2006

CAMPBELL STEPHENSON ASCOLESE, LLP
4807 SPICEWOOD SPRINGS RD.
BLDG. 4, SUITE 201
AUSTIN, TX 78759

EXAMINER	
MOORE, IAN N	

ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 02/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/843,021	UZUN, NECDET	
	Examiner	Art Unit	
	Ian N. Moore	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1,3,5,6,8-18 and 20-22* is/are rejected.

7)☒ Claim(s) *2,4,7 and 19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *03 July 2001* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Oath/Declaration

1. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

a. It does not identify the city and either state or foreign country of residence of each inventor. The residence information may be provided on either an application data sheet or supplemental oath or declaration.

b. It does not identify the citizenship of each inventor.

c. The oath of declaration is unsigned.

Drawings

2. The drawings are objected to because there is a lack of descriptive text legends for **FIG. 1a, 1b, 2a, and 2b.** [37 CFR 1.83, CFR 1.84 [5(e)], MPEP § 608.02(e)]

Claim Objections

3. Claims 15 and 20 are objected to because of the following informalities:

Claim 15 recites, "**a** fault" in line 3 and line 5. For clarity, it is suggested to change "**a** fault" in line 5 to "**the** fault.

Claim 20 recites, "**a** first node" and "**a** first and **a** second node" in line 3, and "**a** second node" in line 6. For clarity, it is suggested to change "**a first** and a second node" in line 3 as "**the first** and a second node", and "**a second** node" in line 6 as "**the second** node", respectively. Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1,5,6,9,10,14-17, and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by Tokura (US005469428A).

Regarding Claim 1, Tokura discloses a network (see FIG. 1, 8, and/or 10; network) including one or more nodes (see FIG. 1, 10; Nodes 11-16) connected by first (see FIG. 10, Ring 32) and second rings (see FIG. 10, Ring 31) formed by two or more transmission media (see FIG. 1, 8, 10; transmission media for STM/ATM ring; see col. 1, line 10-12; see col. 2, line 53-56), each transmission media including one or more signal channels (see FIG. 1,8, 10; STM/ATM utilizes channels/time slots; see col. 6, line 50-67), the network comprising:

a first node (see FIG. 1, 10; Node 14);

a second node (see FIG. 1, 10; Node 13) connected to the first node by a first transmission media adapted to transmit transit data from the first node to the second node (see FIG. 1, 10; a line/link that transmits traffic from Node 14 to Node 13) and a second transmission media adapted to transmit transit data from the second node to the first node (see FIG. 1, 10; a line/link that transmits traffic from Node 13 to Node 14); see col. 5, line 59 to col. 6, line 4;

a third node (see FIG. 1, 10; Node 12) connected to the second node by a third transmission media adapted to transmit transit data from the second node to the third node (see

FIG. 1, 10; a line/link that transmits traffic from Node 13 to Node 12) and a fourth transmission media adapted to transmit transit data from the third node to the second node (see FIG. 1, 10; a line/link that transmits traffic from Node 12 to Node 13); see col. 5, line 59 to col. 6, line 4;

a fourth node (see FIG. 1, 10; Node 11) connected to the first node by a fifth transmission media adapted to transmit transit data from the fourth node to the first node (see FIG. 1, 10; a line/link that transmits traffic from Node 11 to Node 14) and a sixth transmission media adapted to transmit transit data from the first node to the fourth node (see FIG. 1, 10; a line/link that transmits traffic from Node 14 to Node 11); see col. 5, line 59 to col. 6, line 4;

the second node operable to receive transit data from the fourth transmission media (see FIG. 1,10; Node 13 receives traffic via a line/link from Node 12); detect a first fault in the second transmission media (see FIG. 10, failure on a link/line that transits traffic from node 13 to node 14), and forward the transit data from the third node received on the fourth transmission media to the third node on the third transmission media (see FIG. 8 and 10, looping the traffic receive from Node 13 back to Node 13; see col. 7, line 28-47); and

the first node operable to receive transit data on the fifth transmission media (see FIG. 8 and 10, Node 14 continues to receive traffic on a line/link that transmits traffic from Node 11 to Node 14) and, irrespective of the existence of the first fault, forward the transit data from the fourth node to the second node on the fifth and first transmission media (see FIG. 8 and 10; Node 14 continues to transmit data from Nod 11 to Node 13 on ring 32 regardless of the fault in ring 31; see col. 7, line 28-47);

wherein the first ring (see FIG. 10, Ring 32) includes the first transmission media, the third transmission media, and the fifth transmission media (see FIG. 10, see FIG. 1, 10;

lines/links that transmit traffic from Node 14 to Node 13, Node 13 to Node 12, and Node 11 to Node 14): and wherein the second ring (see FIG. 10, Ring 31) includes the second transmission media, the fourth transmission media, and the sixth transmission media (see FIG. 10, see FIG. 1, 10; lines/links that transmit traffic from Node 13 to Node 14, Node 12 to Node 13, and Node 14 to Node 11).

Regarding Claim 5, Tokura discloses first though sixth transmission media are fiber (see FIG. 1, 8, 10; optical fiber is used for STM/ATM ring; see col. 1, line 10-12.)

Regarding Claim 6, Tokura discloses the first node (Node 14 in FIG. 10 is the same as Node 13 in FIG. 12, since the failure occurs between these two nodes) is operable to detect a second fault in the first transmission media (see FIG. 12, a second failure occurs on ring 32 between node 12 and 13); and forward the transit data from the fourth node (see FIG. 12, node 11) received on the fifth transmission media to the fourth node (see FIG. 12, Node 11) on the sixth transmission media (see FIG. 12, at Node 14, the traffic receives from Node 11 is looped back to Node 11; see col. 7, line 28-57.

Regarding Claim 9, Tokura discloses wherein the first node detects the first fault by interpreting intelligent protection switching data (see col. 6, line 34-43; detecting and interpreting Far End Received Failure (FERF) for failures).

Regarding Claim 10, Tokura discloses wherein the first node is operable to broadcast the first fault to one or more nodes (see col. 6, line 34-43; broadcasting Far End Received Failure (FERF) between nodes for failures).

Regarding Claim 14, Tokura discloses wherein the at least one of the first ring and the second ring is a small ring (see FIG. 1, 10, Ring 32 is a small ring).

Regarding Claim 15, Tokura discloses in a system (see FIG. 1, 8, and/or 10; network) that includes first (see FIG. 10, Ring 32) and a second rings (see FIG. 10, Ring 31) coupling two or more nodes (see FIG. 1, 10; Nodes 11-16), a method for transmitting transit data through the system wherein the first ring is intact (see FIG. 10, Ring 32 is normal) and the second ring has a fault between two nodes (see FIG. 10, ring 31 has a failure between Node 13 and 14), the method comprising:

wrapping transit data from a second, faulted ring to a first, intact ring at an upstream node adjacent to a fault (see FIG. 8, 10; looping the traffic receive from Node 13 back to Node 13 close to the failure; see col. 7, line 28-47; and

maintaining transit data on the first, intact ring between the upstream node and a downstream node adjacent to the fault (see FIG. 8 and 10, the traffic continues to pass-through/transit between Node 13 and Node 14 which is closed to the failure; see col. 7, line 28-47).

Regarding Claim 16, Tokura discloses receiving host data for the first, intact ring at the downstream node; and maintaining the host data on the first, intact ring (see FIG. 8 and 10, Node 14 continues to receive user/host traffic on ring 32 regardless of the fault in ring 31; see col. 7, line 28-47).

Regarding Claim 17, Tokura discloses receiving host data for the first, intact ring at the downstream node (Node 14 in FIG. 10 is the same as Node 13 in FIG. 12, since the failure occurs between these two nodes); and wrapping the host data onto the second, faulted ring (see FIG. 12, a second failure occurs on ring 32 between node 12 and 13, the traffic from is looped back at node 13; see col. 7, line 28-57).

Regarding Claim 20, Tokura discloses a system (see FIG. 1, 8, and/or 10; network) that includes a first (see FIG. 10, Ring 31) and second rings (see FIG. 10, Ring 32) coupling two or more nodes (see FIG. 1, 10; Nodes 11-16), comprising:

a first node (see FIG. 1, 10; Node 14) configured to maintain data on a second ring (see FIG. 10, Ring 32) between a first and a second node (see FIG. 10, Node 13) upon detecting a fault in the first ring between the first and the second nodes (see FIG. 10, failure on a link/line that transits traffic from node 13 to node 14); see col. 7, line 28-47; and

a second node (see FIG. 10, Node 13) configured to wrap the data from the first ring onto the second ring (see FIG. 8 and 10, looping the traffic receive from Node 13 back to Node 13; see col. 7, line 28-47).

Regarding Claim 21, Tokura discloses wherein the first node is configured to receive external data from outside the ring along the second ring; and maintain the external data on the second ring (see FIG. 8 and 10, Node 14 continues to receive user/host traffic on ring 32 regardless of the fault in ring 31; see col. 7, line 28-47).

Regarding Claim 22, Tokura discloses wherein the first node is configured to receive external data from outside the ring along the second ring (Node 14 in FIG. 10 is the same as Node 13 in FIG. 12, since the failure occurs between these two nodes); and wrap the external data onto the first ring (see FIG. 12, a second failure occurs on ring 32 between node 12 and 13, the traffic from is looped back at node 13 onto ring 31; see col. 7, line 28-57).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 3, 8 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokura in view of Shiragaki (US006657952B1).

Regarding Claim 3, Tokura discloses wherein the first node is operable to receive host data (see FIG. 8 and 10; node 14 receives user/host traffic; see col. 7, line 28-47), irrespective of the existence of the first fault (see FIG. 1, in normal condition with no failure), forming the host data with the transit data received on the fifth transmission media (see FIG. 1, forming a signal with host/user traffic and pass-through/transit traffic) and forward the formed data to the second node on the first transmission media (see FIG. 1, routes the formed signal to the node 13 over a link/line from node 14 to node 13).

Tokura does not explicitly disclose multiplexed data. However, Shiragaki teaches multiplexing the transit data with the host data, creating multiplexed data (see FIG. 11A-B, Add/Drop Multiplexer (ADM); FIG. 12, Mux 1211-1214, Path switch 1221-1222, protection switch 1231-1232; note that mux 1211-1214 multiplexes the user/host (that is looped/switch from another ring) and normal transfer/pass-through traffic to form a multiplexed signal; see col. 12, line 5-60; see col. 5, line 5-63. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide multiplexing user protection-switched traffic data and the normal pass-through/transit data traffic, as taught by Shiragaki in the system of Tokura, so that it would provide a short length recovery routes and ensures high efficient utilization of transmission medium; see Shiragaki col. 2, line 1-6; see col. 3, line 31-59.

Regarding Claim 8, Tokura discloses adding or dropping host data (see col. 6, line 4-67).

Tokura does not explicitly disclose add/drop multiplexer. However, Shiragaki teaches wherein one or more nodes includes an add/drop multiplexer operable to extract or add host data (see FIG. 1, 11A-B, Add/Drop Multiplexers (ADM); see col. 4, line 50 to col. 5, line 25. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide ADM, as taught by Shiragaki in the system of Tokura, so that it would provide a short length recovery routes and ensures high efficient utilization of transmission medium; see Shiragaki col. 2, line 1-6; see col. 3, line 31-59.

Regarding Claim 18, Tokura discloses in a system that includes a first (see FIG. 10,12; Ring 32) and a second ring (see FIG. 10,12; Ring 31) coupling two or more nodes (see FIG. 1, 10, 12; Nodes 11-16), a method for transmitting first and second transit and first and second host data (see FIG. 1, 10, 12, transfer/pass-through traffic and user/host looped traffic and) and transit through the system wherein the first and second rings have faults between two nodes (see FIG. 10, single fault, and FIG. 12, a double faults), the method comprising:

wrapping in a first node (see FIG. 8, 10; Node 13) first transit data from the second ring to the first ring (see FIG. 8 and 10; if a failure on a link/line on ring 31 from node 13 to node 14, looping the user/host traffic receive from ring 31 to ring 32); see col. 7, line 28-47;

receiving first host data in the first node along the first ring (see FIG. 8 and 10, Node 13 continues to receive traffic on a line/link that transmits traffic from Node 11 to Node 13); see col. 7, line 28-47;

forming the first transit data with the first host data, creating first formed data (see FIG. 8,10; create the first formed data formed data with user/host loop traffic and normal transfer/pass-through traffic);

routing the first formed data along the first ring (see FIG. 8, 10; Node 13 continues to transmit data on ring 32; see col. 7, line 28-47);

wrapping in a second node (see FIG. 12, Node 13) second transit data from the first ring to the second ring (see FIG. 12; if the a single failure occurs on between Node 12 and Node 13, the same identical steps are performed as set forth above (i.e. a failure on a link/line that transits traffic from node 13 to node 14); see FIG. 12, a second failure occurs on ring 32 between node 12 and 13, and the traffic is looped from ring 32 to ring 31; see col. 7, line 28-57;

receiving second host data in the second node along the second ring (see FIG. 8 and 12, Node 13 continues to receive traffic on a line/link that transmits traffic from Node 14; see col. 7, line 28-57;

forming the second transit data with the second host data, creating a second formed data (see FIG. 8 and 12; create the second formed data formed data with user/host looped traffic and transfer/pass-through traffic); see col. 7, line 28-57; and

routing the second formed data along the second ring (see FIG. 8 and 12; Node 13 continues to transmit data on ring 31; see col. 7, line 28-57.

Tokura does not explicitly disclose multiplexing the transit data with the host data, creating multiplexed data. However, Shiragaki teaches multiplexing the transit data with the host data, creating multiplexed data (see FIG. 11A-B, Add/Drop Multiplexer (ADM); FIG. 12, Mux 1211-1214, Path switch 1221-1222, protection switch 1231-1232; note that mux 1211-1214

multiplexes the user/host (that is looped/switch from another ring) and normal transfer/pass-through traffic to form a multiplexed signal; see col. 12, line 5-60; see col. 5, line 5-63. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide multiplexing user protection-switched traffic data and the normal pass-through/transit data traffic, as taught by Shiragaki in the system of Tokura, so that it would provide a short length recovery routes and ensures high efficient utilization of transmission medium; see Shiragaki col. 2, line 1-6; see col. 3, line 31-59.

8. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tokura in view of Kalman (US006865149B1).

Regarding Claim 11, Tokura discloses wherein the first node includes operable to detect the transit data from the second node as described above in claim 1.

Tokura does not explicitly disclose counter. However, Kalman teaches wherein the first node includes a counter (see FIG. 7, SERDES 42 and MAC 44) operable to detect the transit data (see col. 11, line 25-67; the combined system of serializer/deserializer and MAC counts the number of transmits data). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a counter, as taught by Kalman in the system of Tokura, so that it would provide protection and restoration technique that efficiently utilizes the total bandwidth; see Kalman col. 2, line 48-67.

Regarding Claim 12, the combined system of Tokura and Kalman discloses all limitations as described above in claim 11. Kalman further teaches the counter is operatable to adjust whenever the transmit is not received (see FIG. 7, SERDES 42 and MAC 44) operable to

detect the transit data (see col. 11, line 25-67; the MAC detects the error/failure (i.e. data not receiving) and adjust its counts accordingly). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a counter adjusting/counting, as taught by Kalman in the system of Tokura, so that it would provide protection and restoration technique that efficiently utilizes the total bandwidth; see Kalman col. 2, line 48-67.

9. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Tokura in view of Bell (US 4,519,070).

Regarding Claim 13, Tokura does not explicitly disclose an idle frame signal. However, Bell teaches wherein the node detects an idle frame signal (see col. 2, line 35-43; col. 4, line 20-45; see col. 5, line 15-25; a station detects an idle signal). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide a counter, as taught by Bell in the system of Tokura, so that it would provide a method of operating a station such that it determines whether or not another station to which it is coupled plus the coupling itself is operable; see Bell col. 1, line 55-63; see col. 2, line 36-43.

Allowable Subject Matter

10. Claims 2, 4, 7 and 19 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

11. Applicant's arguments with respect to claims 1-22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N. Moore whose telephone number is 571-272-3085. The examiner can normally be reached on 9:00 AM- 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

INM
2-7-06

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600